



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application for:

Naomi O. Limcangco

Application No.: 10/816,402

Filed: 03/31/2004

For: MICROELECTROMECHANICAL  
SWITCH WITH AN ARC  
REDUCTION ENVIRONMENT

Examiner: Not Yet Assigned

Art Group: 2832

Confirmation No. 9598

CERTIFICATE OF TRANSMISSION/MAILING

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Typed or Printed: Heather L. Adamson

Signature: Heather L. Adamson Date: 07/30/2004

Mail Stop Amendment  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. § 1.97(g), the submission of this Information Disclosure Statement (IDS) is not to be construed as a representation that a search has been made, and, pursuant to 37 C.F.R. § 1.97(h), the submission of this IDS is not to be construed as an admission that the information cited in this IDS is material to patentability.

This IDS is being submitted under one or more of the following sections of 37

C.F.R. § 1.97 (as indicated by an "X" to the left of the appropriate paragraph(s)):

  X   37 C.F.R. § 1.97(b). Filed:

- (1) Within three months of a National Application other than a CPA;
- (2) Within three months of entry into National Stage;
- (3) Before mailing of a first Office Action on the merits; or
- (4) Before mailing of a first Office Action after filing an RCE.

       37 C.F.R. § 1.97(c). Filed before the mailing of a Final Office Action, Notice of Allowance, or an action that otherwise closes prosecution.

And, ONE of the following:

(1) One statement from 37 C.F.R. § 1.97(e);

      (e)(1) The person signing below certifies that each item of information contained in this IDS was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS; or

      (e)(2) The person signing below certifies that no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing below after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 1.56(c) more than three months prior to filing this IDS.

**OR**

(2) The fee set forth in 37 C.F.R. § 1.17(p).

      A check in the amount of \$180.00 is enclosed.

       37 C.F.R. § 1.97(d). Filed on or before payment of the issue fee.

And, BOTH of the following:

(1) one statement from 37 C.F.R. § 1.97(e);

      (e)(1) The person signing below certifies that each item of information contained in this IDS was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS; or

      (e)(2) The person signing below certifies that no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing below after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 1.56(c) more than three months prior to filing this IDS.

**AND**

(2) The fee set forth in 37 C.F.R. § 1.17(p).

      A check in the amount of \$180.00 is enclosed.

Accompanying this IDS is a list of references and a copy of each reference listed therein, EXCEPT copies of references waived under:

(A) one or more of the following sections of 37 C.F.R. § 1.98 (as indicated by an "X" to the left of the appropriate paragraph(s)):

\_\_\_\_\_ 37 C.F.R. § 1.98(c) as being cumulative (marked with an "\*" on the Form PTO-1449).

\_\_\_\_\_ 37 C.F.R. § 1.98(d) as being previously submitted in parent application  
\_\_\_\_\_/\_\_\_\_\_,\_\_\_\_\_, to which the present application claims priority under 35  
U.S.C. § 120.

(B) 1273 Off. Gaz. Pat. Office 55 as being submitted with respect to an application filed after June 30, 2003.

The Commissioner is hereby authorized to charge shortages or credit overpayments to Deposit Account No. 500393. A Fee Transmittal is enclosed in duplicate for fee processing purposes.

Respectfully submitted,  
SCHWABE, WILLIAMSON & WYATT, P.C.

Dated: 7/30/04

  
\_\_\_\_\_  
by, Nathan R. Maki, Reg. No. 51,110  
Attorney for Applicants

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Substitute for form 14

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(Use as many sheets as necessary)*

Sheet	1	of	2
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**Complete if Known**

Application Number	10/816,402
Filing Date	03/31/2004
First Named Inventor	Naomi O. Limcangco
Art Unit	2832
Examiner Name	Not Yet Assigned
Attorney Docket Number	110578-135677

## U. S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

[illegible]

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)	<b>Application Number</b>		10/816,402
	<b>Filing Date</b>		03/31/2004
	<b>First Named Inventor</b>		Naomi O. Limcangco
	<b>Art Unit</b>		2832
	<b>Examiner Name</b>		Not Yet Assigned
	<b>Attorney Docket Number</b>		110578-135677

Sheet

2

of

2

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	4	BOXMAN, Reuven, "Introduction to Plasma Principles and Applications," IPSTA Plasma Course, Tel Aviv University, <a href="http://plasma-gate.weizmann.ac.il/IPSTA/Course2001/Notes/Rboxman_2.ppt">http://plasma-gate.weizmann.ac.il/IPSTA/Course2001/Notes/Rboxman_2.ppt</a> (link no longer active)	
	5	BROWN, Elliott R., "RF-MEMS Switches for Reconfigurable Integrated Circuits," IEEE Transactions on Microwave Theory and Techniques, Vol. 46, No. 11, Nov. 1998, pp. 1868-1880	
	6	McBRIDE, John W., "Electrical Contact Bounce in Medium-Duty Contacts," IEEE Transactions on Components, Hybrids, and Manufacturing Technology, Vol. 12, No. 1, March 1989, pp. 82-90	
	7	MIAO, Lu, et al. "Testing and Analysis of Lifetime of a Vertical Bulk MEMS Switch," IEEE, 2001, pp. 765-768	
	8	NEWMAN, Harvey S., "RF MEMS Switches and Application (INVITED)," IEEE, 40th Annual International Reliability Physics Symposium, 2002, pp. 111-115	
	9	REBEIZ, Gabriel M., et al., "RF MEMS Switches and Switch Circuits," IEEE Microwave Magazine, December 2001, pp. 59-71	

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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